The (re)discovery of some of the oldest key-driven adding machines (1844)

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20 december 2014

The purpose of this brief note is to announce the (re)discovery of three of the adding machines patented in 1844 by Jean-Baptiste Schwilgué and his son Charles. Jean-Baptiste Schwilgué (1776–1856) is the well-known designer of the current astronomical clock of the Strasbourg cathedral, a marvel of 19th century engineering. In addition to working on his astronomical clock, he constructed about 500 tower clocks, as well as various machines, scales, calculating machines, etc. In an earlier article published in 2008, we have described this adding machine, and identified it as the currently oldest existing key-driven adding machine. Another key-driven adding machine was invented by Luigi Torchi in 1834, but no copy of it is known.

At the time of the publication of our article, in 2008, the only machine we had seen was the copy kept at the Swiss Federal Institute (ETH) in Zurich, a copy dated 1851. Around 2006, the Smithsonian Institution in Washington kindly accepted to open the machine built by Schilt, also in 1851, a machine obviously copied on that of Schwilgué.

We knew that the Strasbourg museums had several of these machines, but they were not on display, and nobody knew where they were when we started looking for them in 2003. These machines, and several others, surfaced in 2009. A total of three adding machines made after the 1844 patent had been kept, and we have been able to examine and dismantle them soon after their (re)discovery. One of these machines bears the year 1846.

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Schwilgué did not venture very much in the world of calculating machines, but apart from his work on the mechanization of the church computus, which is a kind of calculation, and apart from the present simple adding machine, he also designed a counter, also patented in 1844, as well as a more complex specialized adding machine for the generation of arithmetic series of integers.

Upcoming articles will describe these newly found machines extensively. If other such machines are kept elsewhere, we would appreciate information on them.